U.S. ARMY FOOD AND WATER VULNERABILITY ASSESSMENT GUIDE

US Army Center for Health Promotion and Preventive Medicine

APG, MD 21010

FOUO Document

- **Data classification as determined by Installation Security Authority**
- **All materials should be treated as Confidential or Above**
  - **Field notes**
  - **Video tapes**
  - **Reports**

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Vision

Enhance public health and force protection by providing soldiers, their families, civilian workers and other beneficiaries with a safe and secure food and water sources and supplies.

Strategy

Reduce vulnerability of food and water supplies to terrorist attack. This guide is intended for installation commanders and their staffs to counter terrorist threats to Army food and water supplies. It is also designed to assist in the planning and implementing of protective measures to prevent or mitigate attacks against food and water at fixed installations and to assist commanders in instituting control measures during periods of increasing threat.

Scope

- **The focus of this program is to assess installation vulnerability to intentional contamination or destruction of food and water supplies.**

- **Introduction and two stand alone chapters**
  - **food vulnerability**
  - **water system vulnerability**
    - **different teams will likely conduct each assessment**
    - **assessments follow different procedures**
    - **many common goals and objectives**

Chapter 1 - Background

This chapter contains general background information relevant to terrorist attacks.

Chapter 2 - Food Vulnerability Assessment

This chapter is designed for the installation commander and staff to assess the vulnerability of the food, including ice and bottled water supply. This chapter is designed to be implemented by the installation staff, with minimum training and assistance from outside agencies

CHPPM role is NOT to do assessments

Commander

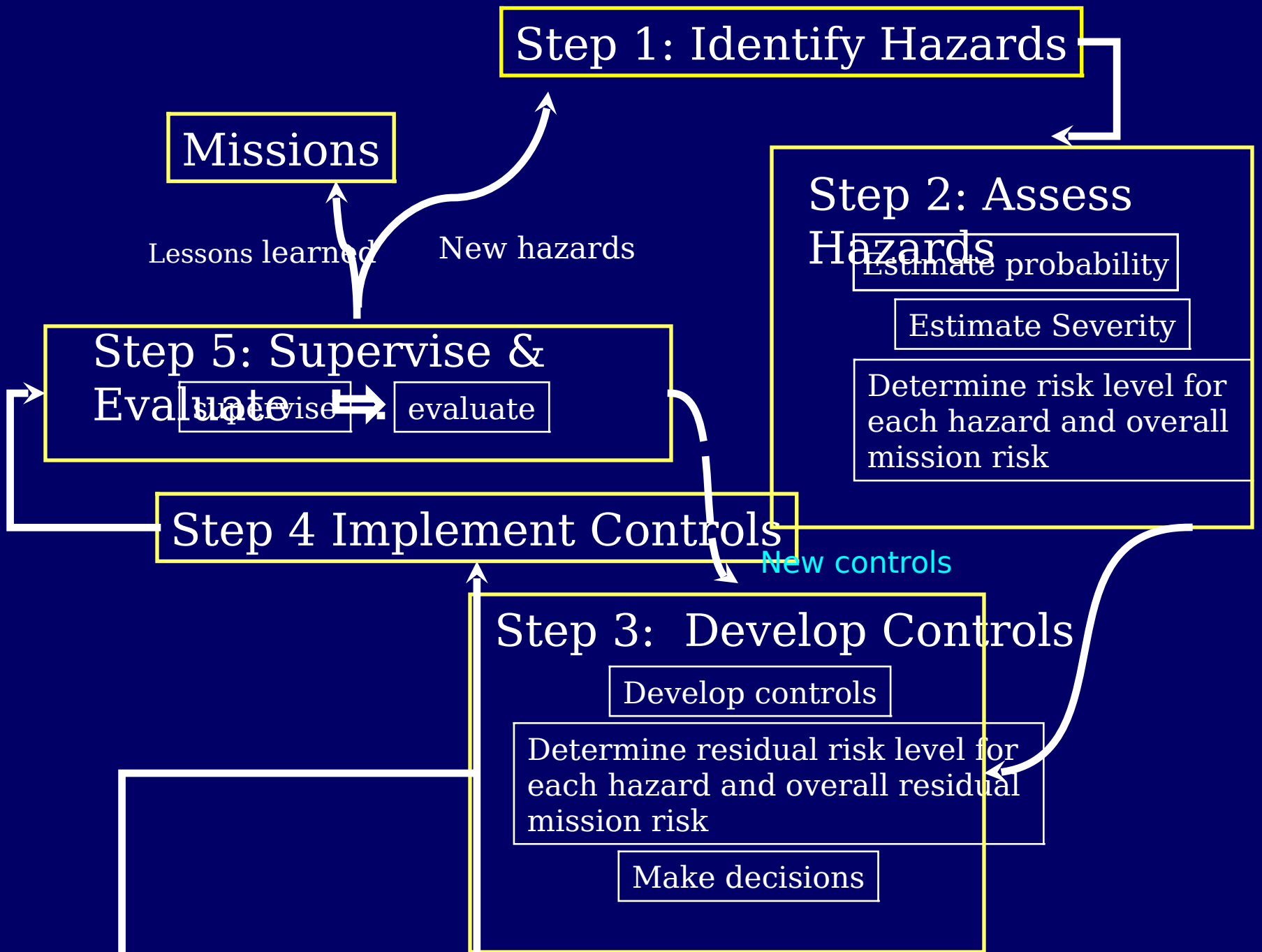
- **Identify Office of Primary Responsibility (OPR) for the installation.**
- **Establish a multi-disciplinary Food Security Assessment Team (FSAT)**
  - **Core personnel:**
  - **Installation Force Protection Officer**
  - **Preventive Medicine Officer**
  - **Veterinary Corps Officer**
  - **Installation Food Advisor**
  - **CID/Military Intelligence**

Auxiliary members

- Environmental Management Officer
- Provost Marshal
- Transportation
- Supply/Logistics
- Contracting Officer(s) for Food Operations, Ice and Bottled Water
- JAG
- Risk Communication specialist or, at a minimum, Public Affairs Officer

Auxiliary members (cont)

- Emergency Room/TMC Supervisors
- Hospital Dietitian
- School Food Service Manager
- AAFES Food Service Manager
- Child Development Center/Youth Activities Food Services Manager
- MWR Food Manager
- Commissary Officer


Step 1: Identify Hazards
Missions
Lessons learned
New hazards
Step 2: Assess Hazards
Estimate probability
Estimate Severity
Determine risk level for each hazard and overall mission risk
Step 5: Supervise & Evaluate
supervise
evaluate
Step 4 Implement Controls
New controls
Step 3: Develop Controls
Develop controls
Determine residual risk level for each hazard and overall residual mission risk
Make decisions

Section 3 - Process

- **The FSAT should:**
  - **Develop a comprehensive list of food assets**
  - **Develop procedures to receive credible threat assessments from intelligence personnel**
  - **Utilize the RM approach to identify, analyze, and control hazards**
  - **Develop and regularly update a comprehensive list of POCs (See Section 7: Points of Contact)**

Section 4: Vulnerability Assessment

- *Assessment Process*
  - **Initially, identify all food assets. Form 1, Asset List, assists in identifying these assets. Describe the installation food procurement sources and the distribution from their sources. Develop flow diagrams that describe the processes for each asset (see Figure 1, Flow Diagrams)**

Process

Step 1 – Identify Hazards

Step 2 — Assess Hazards

Evaluate Hazard Probabilities

- FREQUENT - occurs often or continuous.
- LIKELY - occurs several times.
- OCCASIONAL - occurs sporadically.
- SELDOM - remotely possible; could occur at some time.
- UNLIKELY - can assume will not occur, but not impossible.

Evaluate Hazard Severities

- **The estimation of hazard severity involves three primary judgments:**
- (1) Proportion of the installation that is likely to exhibit effects.
- (2) Nature of the health effect(s) associated with exposures.
- (3) Confidence in the available data, given the sources of uncertainty and variability.

Severity Categories

- **CATASTROPHIC - loss of ability to accomplish the mission or mission failure.**
- **CRITICAL - significantly (severely) degraded mission capability or readiness.**
- **MARGINAL - degraded mission capability or readiness.**
- **NEGLIGIBLE - little or no adverse impact on mission capability or readiness.**

Risk Characterization

Risk Assessment Matrix (Table 1)

	Hazard Probability				
Hazard Severity	***Frequent (A)***	***Likely (B)***	***Occasional (C)***	***Seldom (D)***	***Unlikely (E)***
Catastrophic (I)	**Extremely High**	**Extremely High**	**High**	**High**	**Moderate**
Critical (II)	**Extremely High**	**High**	**High**	**Moderate**	**Low**
Marginal (III)	**High**	**Moderate**	**Moderate**	**Low**	**Low**
Negligible (IV)	**Moderate**	**Low**	**Low**	**Low**	**Low**

Risk Estimate

Risk Level Definitions (table 2)

EXTREME

Expected loss of ability to accomplish the mission, or serious workforce or community impact (either on- or off-post).*

HIGH

Expected significant degradation of mission capabilities in terms of the required mission standard, inability to accomplish all parts of the mission, or inability to complete the mission to standard if hazards occur during the mission, or significant workforce or community impact (either on- or off-post).*

*To assess the mission, workforce, or community impact, the FSAT should consider the psychological consequences of a terrorist event.

Risk Level Definitions (table 2)

MODERATE

Expected degraded mission capabilities in terms of the required mission standard will reduce mission capability if hazards occur during mission, or minor workforce or community impact (either on- or off-post).*

LOW

Expected losses have little or no impact on accomplishing the mission, and little or no impact on the community (either on- or off-post).*

*To assess the mission, workforce, or community impact, the FSAT should consider the psychological consequences of a terrorist event.

Determine Confidence in Risk Estimate

- **Sampling or field data quality**
- **Actual exposures of installation personnel**
- **Installation attributes**
- **Comparability of guideline assumptions to expected installation exposure patterns**
- **Expected symptoms of exposure**
- **Other uncertain/missing, information**
- **Is predicted outcome plausible, given weight of evidence or real-world experiences**

Section 5: Risk Management

- ***Step 3 — Develop Controls and Make Risk Decisions***
  - ***Sub step A - Develop Controls***
    - ***three basic categories:***

(1) Educational controls (See Fact Sheet-1: *Educational and Training Protection Food Assets*)
(2) Physical Controls (See Fact Sheet-2: *Physical Controls-Food Vulnerabilities*)
(3) Avoidance (See Fact Sheet-3: *Avoidance-Food Vulnerabilities*)

Decisions and Follow-Up

- ***Sub step B – Make Risk Decisions***
- ***Step 4 — Implement Controls***
- ***Step 5 - Supervise and Evaluate***

A.	Name of Asset/Establishment	Location	POC/Phone
1.	Troop Issue Subsistence Officer/Installation Food Advisor Hospital Nutrition Care Division		
2.	Post Commissary All OPRATS Storage Locations		
3.	NAF Contracting Officer CDC/Youth Services Officer/NCO Clubs Sports Clubs/Gymnasiums Civilian Welfare Fund		
4.	AAFES PX/All Shoppettes Food Court Facilities Fast Food Restaurants Mobile Food Services		
5.	Fast Food Delivery (Off Post)		
	ETC		

Form 2 - Food Vulnerability Assessment Checklist

Location:_____ Person In Charge:_____
Telephone:_____

I. Personnel

1. History			
a. Are thorough background checks performed on all personnel (to include new and temporary personnel)	Yes	No	N/A
b. Is DNA/fingerprint archiving performed on all personnel	Yes	No	N/A
2. Concessionaires			
a. Are persons associated with concessions limited to their activity (No access to other food storage/preparation areas)	Yes	No	N/A

II. Local Procurement

1. Procurement Source			
a. Are local sources approved by Veterinary personnel	Yes	No	N/A
b. Are specific security issues addressed by local contracting authority in each contract	Yes	No	N/A

III. Installation Entry/Receipt

1. Vehicle			
a. Is vehicle recorded at installation entry	Yes	No	N/A
b. Is vehicle searched at installation entry	Yes	No	N/A
c. Is vehicle sealed from point of origin	Yes	No	N/A
d. Is vehicle inspected at first delivery point	Yes	No	N/A
e. Is vehicle resealed or escorted between multiple delivery points	Yes	No	N/A
f. Is vehicle recorded at installation exit	Yes	No	N/A

III. Installation Entry/Receipt (cont)

3. Visitors			
a. Are visitors identified, recorded and escorted at all times	Yes	No	N/A
b. Are visitor passes/badges collected when visitor departs	Yes	No	N/A
4. Facilities			
a. a. Is the area around the facility illuminated adequately for night time security monitoring	Yes	No	N/A
b. Are facilities periodically inspected by security personnel during non duty hours	Yes	No	N/A
5. Open Product/Self Service Areas			
a. Are self service food areas consistently monitored	Yes	No	N/A
b. Are self service food areas limited to authorized patrons only	Yes	No	N/A

IV. Storage, Preparation and Serving

1. Employee Access			
a. Is current list of employees maintained	Yes	No	N/A
b. Is area access limited to authorized personnel only	Yes	No	N/A
c. Are authorized entry restrictions in place (keys/photocell badges, etc)	Yes	No	N/A
d. Are control procedures in place in the event of lost keys/badges, etc.	Yes	No	N/A
2. Security Measures			
a. Are video cameras, alarms, security personnel, or other monitoring devices used to monitor storage areas	Yes	No	N/A
b. Are doors, windows secured/locked when not in use	Yes	No	N/A
c. Is a person identified to verify security of all entry points (Doors/windows) at the end of the duty day	Yes	No	N/A
d. If badges are used, are they difficult to counterfeit	Yes	No	N/A
e. Are personal items of employees excluded from storage areas	Yes	No	N/A

A. Installation activity asset (STEP 1)

DeCA Commissary, Fort XXXXX

B. Assessment prepared by: (Name/Rank/Telephone #)

CW2 Phillip X. Xxxxx, DSN 555-1212

C. Date assessment visit conducted (STEP 2):

11 March 2002

D. Identify hazards (STEP 3): (Be Specific)	**E. Assess the hazards (STEP 4):** (Low, Med, High, Extremely High) **L, M, H, E**	**F. Recommend controls for identified hazards (STEP 5):** (Measures taken to reduce the probability and severity of a hazard) (Be Specific)	**G. Determine residual risks (STEP 6):** (Risk level after the controls are applied) **L, M, H, E**	**H. Determine the responsibility for implementation (STEP 7):** (Be Specific) (Name and applicable directive)
I. PERSONNEL 1.a. Background checks on temporary personnel not being performed.	MODERATE	Perform background checks on temporary personnel.	LOW	CPO, CPO Directive 87, Mr. Mitchell
II. LOCAL PROCUREMENT 1.a. Local seafood supplier is not an approved source.	HIGH	Contract personnel must procure food only from approved source. Initial sanitation audit must be requested on all prospective food suppliers that are not exempt from directory listing.	LOW	Contracting officer, local DeCA procurement official. AR 40-657
III. INSTALLATION ENTRY/RECEIPT 1.c. Produce delivery vehicle not sealed at the point of origin.	HIGH	Seals are contractually defined and required. Vehicles sealed with serial numbered seals. Serial numbers annotated on shipping papers. Integrity of the seals verified at the entry checkpoint.	MODERATE	Contracting officer, local DeCA official. Provost Marshal.

I. Remaining risk level after controls are implemented (STEP 8): (CIRCLE THE HIGHEST REMAINING RISK LEVEL)	**LOW**	**MODERATE**	HIGH	EXTREMELY HIGH

J. Assessor's signature (STEP 9):

Phillip

Xxxxxxx, CW2

K. Date:

30 April 2002

Other assets on CD

- Complaints IP
- Fault Tree
- FDA Bioterrorism Guidance
- FDA-CFSAN Guidance for Industry-Food Security Preventive Measures
- FDA-CFSAN Importers and Filers Food Security Preventive Guidance

Other assets on CD

- Risk Communication Appendix
- Risk Management Methodology Brief
- Surveillance Systems Questions
- Surveillance Systems Questions
- WSVA Inbrief/Outbrief